



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,164	08/14/2000	Shunsuke Furukawa	7217-62363	1043
7590	05/03/2004			EXAMINER DAVIS, ZACHARY A
			ART UNIT 2137	PAPER NUMBER 6
			DATE MAILED: 05/03/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

pre

Office Action Summary	Application No.	Applicant(s)	
	09/638,164	FURUKAWA ET AL.	
	Examiner	Art Unit	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 February 2001.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-61 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-61 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 02 October 2000 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

1. Claims 1-61 of the present application, as amended by the preliminary amendment entered 13 February 2001, are under examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.

4. The declaration incorrectly lists the filing date of the prior foreign application as August 18, 2000.

Drawings

5. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Applicant is advised that should claims 23 and 26-31 be found allowable, claims 53 and 56-61, respectively, will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-9, 23-31, and 53-61 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to

a data storing medium and include description of areas in which various types of data are stored on the medium. When descriptive material is recorded on a computer-readable medium, it is not structurally and functionally interrelated to the medium but is merely carried by the medium. This renders the claims non-statutory.

9. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the statutory categories of invention.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 10-18 and 34-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, claim 10 and its dependents 11-17 are single means claims. Claims 18, 34 and its dependent claims 35-37, and 38 and its dependent claims 39-44 are single step claims. Single means (and step) claims are rejected due to undue breadth according to 35 U.S.C. 112, first paragraph. See MPEP 2164.08(a).

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1-21, 25, 33, 36, 41, 42, 46-48, 51, 54, 55, and 57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "copyright control information necessary for decrypting encrypted digital data" in lines 7-8. The claim also states in lines 2-3 that "one of encrypted digital data and non-encrypted digital data is written". This limitation implies that either the encrypted or non-encrypted data is written to the storage medium. This alternative suggests that the copyright control information is not necessary if only non-encrypted data has been written. This contradicts the limitation above that the copyright control information is necessary, which renders the claim indefinite.

Claim 9 recites the limitation "the recorded data" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 states the limitation "writing one of encrypted digital data and non-encrypted digital data" in lines 1-2. The claim also recites "means for writing the encrypted digital data" in line 4 but does not provide a means for writing non-encrypted digital data, which renders the claim indefinite.

Claim 11 contains the limitation "as data that is written to an area for the copyright control information" in lines 3-4. It is unclear as to how this limitation further

limits the claim, and the limitation is generally unclear, which renders the claim indefinite.

Claim 15 recites the limitation “the data converting process” in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation “the data converting process” in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation “the recorded data” in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation “writing one of encrypted digital data and non-encrypted digital data” in lines 1-2. The claim also discloses a step of “writing the encrypted digital data” but does not provide a step for writing non-encrypted digital data, which renders the claim indefinite.

Claim 19 recites the limitation “wherein when an entire error correction block is not error-corrected, data of the error correction block that does not contain the copyright control information and that does not have an error is reproduced” in lines 5-8. It is unclear as to how this limits the claim. Further, the claim is directed to an apparatus, but does not recite any specific components of such apparatus, which renders the scope of the claim indefinite.

Claim 25 recites the limitation “the copyright control information” in lines 5-6. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation “the error detected result” in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

Claim 36 recites the limitation “the error correction code” in lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

Claim 41 recites the limitation “the copyright control information” in lines 6-7 and the limitation “the error correction code” in lines 8-9. There is insufficient antecedent basis for these limitations in the claim.

Claim 42 recites the limitation “the different data is converted by exclusively ORing the copyright control information and different data” in lines 3-5. It is unclear whether the two recitations of “different data” refer to the same data or to two separate sets of data, which renders the claim indefinite. Further, there is insufficient antecedent basis for the limitation “the copyright control information” in the claim.

Claim 46 recites the limitation “the copyright control data” in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 47 recites the limitation “the copyright control information” in lines 6-7 and the limitation “the error correction code” in line 9. There is insufficient antecedent basis for these limitations in the claim.

Claim 51 recites the limitation “the copyright control information” in lines 6-7 and the limitation “the error correction code” in line 9. There is insufficient antecedent basis for these limitations in the claim.

Claim 54 recites the limitation “at least a portion to which data that is read before the digital data written in said first area is reproduced is the write-prohibited portion” in lines 3-6. It is unclear as to whether the “data that is read” or “the digital data” is being reproduced. This renders the claim indefinite.

Claim 55 recites the limitation “at least a sector to which the data that is read before the digital data written in said first area is reproduced is written is the write-prohibited portion” in lines 5-8. This is generally vague and indefinite, as the meaning of the limitation is unclear. Further, the claim recites the limitation “the data that is read before the digital data written in said first area is reproduced” in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

Claim 57 recites the limitation “the digital data that is read from said first area” in lines 5-6. There is insufficient antecedent basis for this limitation in the claim.

Any claims listed above but not specifically addressed are rejected due to their dependence on a rejected base claim.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1-5, 7, 10, 18, 23-32, 34-35, 38-39, 43-45, 49, and 53-61 are rejected under 35 U.S.C. 102(e) as being anticipated by Tosaki et al, US Patent 6590846.

In reference to Claim 1, Tosaki discloses a data storing medium including a digital data area (column 5, line 67-column 6, line 1), a control data area (the second control data area of column 6, lines 16-19), and a copyright control information area (the first control data area of column 6, lines 10-14). Tosaki further discloses that the copyright control information area is write-prohibited (the first control data area can be embossed, column 6, lines 14-16) and the control data area is write-permitted (the second control data area can be recorded, column 6, lines 19-24).

In reference to Claim 2, Tosaki discloses everything as applied to Claim 1 above, and further discloses that a sector containing the control data area is write-permitted (column 6, lines 19-24).

In reference to Claim 3, Tosaki discloses everything as applied to Claim 1 above, and further discloses that a sector containing the copyright control information is write-prohibited (column 6, lines 14-16).

In reference to Claim 4, Tosaki discloses everything as applied to Claim 1 above, and further discloses that the storing medium is a recordable medium (the DVD-R of column 7, lines 54-55) and that the copyright control information area is embossed as a write-prohibited area (column 6, lines 14-16; column 10, lines 13-14).

In reference to Claim 5, Tosaki discloses everything as applied to Claim 1 above, and further discloses that a write-prohibited area is formed (column 6, lines 14-16).

In reference to Claim 7, Tosaki discloses everything as applied to Claim 1 above, and further discloses that a plurality of write-prohibited areas is formed at intervals (column 8, lines 1-3; Figure 2, elements 3 and 14).

In reference to Claim 10, Tosaki discloses a data recording apparatus including means for writing encrypted digital data (column 6, lines 63-64) and copyright control information (column 6, lines 52-56).

In reference to Claim 18, Tosaki discloses a data recording method including writing encrypted digital data and copyright control information to a data storing medium (column 6, lines 52-64).

In reference to Claim 23, Tosaki discloses a data storing medium including a first area in which digital data is written (column 5, line 67-column 6, line 1) and a second area in which control data is written (the first control data area of column 6, lines 10-14), the second area having a write-prohibited portion (the first control data area can be embossed, column 6, lines 14-16).

In reference to Claim 24, Tosaki discloses everything as applied to Claim 23 above, and further discloses that a portion of the second area in which copyright control information is stored is the write-prohibited portion (the first control data area can be embossed, column 6, lines 14-16).

In reference to Claim 25, Tosaki discloses everything as applied to Claim 23 above, and further discloses that a sector containing the copyright control information is write-prohibited (column 6, lines 14-16).

In reference to Claim 26, Tosaki discloses everything as applied to Claim 23 above, and further discloses that a plurality of write-prohibited areas is formed at intervals (column 8, lines 1-3; Figure 2, elements 3 and 14).

In reference to Claim 27, Tosaki discloses everything as applied to Claim 23 above, and further discloses that a plurality of write-prohibited areas is formed at intervals (column 8, lines 1-3; Figure 2, elements 3 and 14).

In reference to Claim 28, Tosaki discloses everything as applied to Claim 23 above, and further discloses that the data storing medium is a recordable optical storing medium (the DVD-R of column 7, lines 54-55) and that the write-prohibited portion is pre-formed in the second area (the first control data area can be embossed, column 6, lines 14-16).

In reference to Claim 29, Tosaki discloses everything as applied to Claim 28 above, and further discloses that the write-prohibited portion is an embossed area on the recordable optical storing medium (the first control data area can be embossed, column 6, lines 14-16).

In reference to Claim 30, Tosaki discloses everything as applied to Claim 23 above, and further discloses that the second area is read earlier than the first area (the control data area is located at the inner periphery of the disk, column 6, lines 2-4).

In reference to Claim 31, Tosaki discloses everything as applied to Claim 23 above, and further discloses that the digital data in the first area is encrypted (column 3, lines 56-59, where data is ciphered).

In reference to Claim 32, Tosaki discloses a data reproducing method including reading control data (column 7, lines 37-41), determining that the control data has been correctly read (column 7, lines 41-51), and reproducing digital data corresponding to the control data (column 7, lines 27-31).

In reference to Claim 34, Tosaki discloses a data writing method including writing control data to the second area of a data storing medium (column 6, lines 6-10).

In reference to Claim 35, Tosaki discloses everything as applied to Claim 34 above, and further discloses that the control data contains copyright control data for the digital data in the first area of the data storing medium (column 6, lines 10-13).

In reference to Claim 38, Tosaki discloses a data writing method including writing different data to the second area of a data storing medium (column 6, lines 6-10).

In reference to Claim 39, Tosaki discloses everything as applied to Claim 38 above, and further discloses that the different data is reproduction-prohibited (column 6, lines 14-16).

In reference to Claim 43, Tosaki discloses everything as applied to Claim 38 above, and further discloses that the digital data written to the first area is encrypted (column 3, lines 56-59, where data is ciphered).

In reference to Claim 44, Tosaki discloses everything as applied to Claim 38 above, and further discloses that the different data contains copyright control information about the digital data written to the first area (column 6, lines 10-13).

In reference to Claim 45, Tosaki discloses a data writing apparatus including a writing portion (column 6, lines 52-55) and a data processing portion for supplying data to the writing portion (column 6, lines 55-64) such that at least part of the control data is reproduction-prohibited (column 6, lines 14-16).

In reference to Claim 49, Tosaki discloses a data writing apparatus including a writing portion (column 6, lines 52-55) and a data processing portion for supplying data to the writing portion (column 6, lines 55-64) such that at least part of the different data is reproduction-prohibited (column 6, lines 14-16).

In reference to Claim 53, Tosaki discloses a data storing medium including a first area in which digital data is written (column 5, line 67-column 6, line 1) and a second area in which control data is written (the first control data area of column 6, lines 10-14), the second area having a write-prohibited portion (the first control data area can be embossed, column 6, lines 14-16).

In reference to Claim 54, Tosaki discloses everything as applied to Claim 53 above, and further discloses that a portion of the second area is write-prohibited (column 6, lines 14-16) and that the second area is read earlier than the first area (the control data area is located at the inner periphery of the disk, column 6, lines 2-4).

In reference to Claim 55, Tosaki discloses everything as applied to Claim 53 above, and further discloses that a sector is write-prohibited (column 6, lines 14-16) and

that the second area is read earlier than the first area (the control data area is located at the inner periphery of the disk, column 6, lines 2-4).

In reference to Claim 56, Tosaki discloses everything as applied to Claim 53 above, and further discloses that a plurality of write-prohibited areas is formed at intervals (column 8, lines 1-3; Figure 2, elements 3 and 14).

In reference to Claim 57, Tosaki discloses everything as applied to Claim 53 above, and further discloses that a plurality of write-prohibited areas is formed at intervals (column 8, lines 1-3; Figure 2, elements 3 and 14).

In reference to Claim 58, Tosaki discloses everything as applied to Claim 53 above, and further discloses that the data storing medium is a recordable optical storing medium (the DVD-R of column 7, lines 54-55) and that the write-prohibited portion is pre-formed in the second area (the first control data area can be embossed, column 6, lines 14-16).

In reference to Claim 59, Tosaki discloses everything as applied to Claim 58 above, and further discloses that the write-prohibited portion is an embossed area on the recordable optical storing medium (the first control data area can be embossed, column 6, lines 14-16).

In reference to Claim 60, Tosaki discloses everything as applied to Claim 53 above, and further discloses that the second area is read earlier than the first area (the control data area is located at the inner periphery of the disk, column 6, lines 2-4).

In reference to Claim 61, Tosaki discloses everything as applied to Claim 53 above, and further discloses that the digital data in the first area is encrypted (column 3, lines 56-59, where data is ciphered).

16. Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Matsumoto et al, US Patent 6320829.

Matsumoto discloses a data reproducing method including determining that an error correction block is not error corrected (column 8, lines 60-65, where errors are detected if present) and reproducing data (column 9, lines 14-21).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 6, 9, 11-13, 15, 17, 33, 37, 40, 42, 46, 48, 50, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tosaki in view of Matsumoto.

In reference to Claims 6 and 9, Tosaki discloses everything as applied to Claim 1 above. However, Tosaki does not disclose that data is recorded that is different from the copyright control information that is not detected as an error by error correction

code. Further, Tosaki does disclose that the data is modulated (Figure 3, modulation circuit 13), but does not disclose the specific modulation method as 8-16 modulation.

Specifically in reference to Claim 6, Matsumoto discloses a copy control system including recording data different from copyright control information that is not detected as an error by error correction code (the main data is encoded with error correction code which is generally not detected as an error, column 8, lines 30-37).

Specifically in reference to Claim 9, Matsumoto discloses that data is modulated by 8-16 modulation (Figure 2, 8-16 modulator 16; column 8, lines 47-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the medium of Tosaki to include 8-16 modulation and to record data not detected as an error, in order to prevent unauthorized copying of digital data more effectively by allowing the use of different forms and levels of copy restriction (see Matsumoto, column 2, lines 25-27).

In reference to Claims 11, 12, and 17, Tosaki discloses everything as applied to Claim 10 above. However, Tosaki does not disclose that data different from the copyright control information is encoded with error correction code, or that data is not corrected by an error correcting process. Further, Tosaki does disclose that the data is modulated (Figure 3, modulation circuit 13), but does not disclose the specific modulation method as 8-16 modulation.

Specifically in reference to Claim 11, Matsumoto discloses a copy control system in which data that is different from the copyright control information is encoded with error correction code (column 8, lines 30-37).

Specifically in reference to Claim 12, Matsumoto discloses that data is not corrected by an error correcting process (errors intentionally added are detected but not necessarily corrected, column 8, line 65-column 9, line 3).

Specifically in reference to Claim 17, Matsumoto discloses that data is modulated by 8-16 modulation (Figure 2, 8-16 modulator 16; column 8, lines 47-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tosaki to include encoding data with error correction code, to include data that is not corrected by an error correcting process, and to include 8-16 modulation, in order to prevent unauthorized copying of digital data more effectively by allowing the use of different forms and levels of copy restriction (see Matsumoto, column 2, lines 25-27).

In reference to Claim 13, Tosaki and Matsumoto disclose everything as applied to Claim 12 above, and Matsumoto further discloses that the error correcting process is an error detecting and correcting process (column 8, lines 30-37).

In reference to Claim 15, Tosaki and Matsumoto disclose everything as applied to Claim 12 above, and Matsumoto further discloses that different data is combined with copyright control information (error information is added to other than the main data, column 8, lines 38-44) and that data is encoded with error correction code (column 8, lines 33-36).

In reference to Claim 33, Tosaki discloses everything as applied to Claim 32 above. However, Tosaki does not disclose detecting an error from control data or reproducing digital data using control data of which an error flag has not been set.

Matsumoto discloses a copy control system including detecting an error in data (column 8, lines 60-65) and reproducing digital data using control data for which an error flag has not been set (data is reproduced based on the output of the media mark detecting unit and other judgments, column 9, lines 14-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Tosaki to include error detection and reproduction of data using control data for which an error flag has not been set, in order to prevent unauthorized copying of digital data more effectively by allowing the use of different forms and levels of copy restriction (see Matsumoto, column 2, lines 25-27).

In reference to Claim 37, Tosaki discloses everything as applied to Claim 35 above. However, Tosaki does not disclose that the copyright control information is reproduction-prohibited by combining different data with the copyright control information and encoding the data with error correction code.

Matsumoto discloses a copy control system in which different data is combined with copyright control information (error information is added to other than the main

data, column 8, lines 38-44) and is encoded with error correction code (column 8, lines 33-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Tosaki to include combining different data with the copyright control information and to include the use of error correction code, in order to prevent unauthorized copying of digital data more effectively by allowing the use of different forms and levels of copy restriction (see Matsumoto, column 2, lines 25-27).

In reference to Claim 40, Tosaki discloses everything as applied to Claim 39 above. However, Tosaki does not disclose that data is not corrected by an error correcting process.

Matsumoto discloses a copy control system in which data is not corrected by an error correcting process (errors intentionally added are detected but not necessarily corrected, column 8, line 65-column 9, line 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Tosaki, to include data that is not corrected by an error correcting process, in order to prevent unauthorized copying of digital data more effectively by allowing the use of different forms and levels of copy restriction (see Matsumoto, column 2, lines 25-27).

In reference to Claim 42, Tosaki and Matsumoto disclose everything as applied to Claim 40 above, and Matsumoto further discloses that different data is combined with

copyright control information (error information is added to other than the main data, column 8, lines 38-44) and that data is encoded with error correction code (column 8, lines 33-36).

In reference to Claim 46, Tosaki discloses everything as applied to Claim 45 above. However, Tosaki does not disclose that data is not corrected by an error correcting process.

Matsumoto discloses a copy control system in which data is not corrected by an error correcting process (errors intentionally added are detected but not necessarily corrected, column 8, line 65-column 9, line 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tosaki, to include data that is not corrected by an error correcting process, in order to prevent unauthorized copying of digital data more effectively by allowing the use of different forms and levels of copy restriction (see Matsumoto, column 2, lines 25-27).

In reference to Claim 48, Tosaki and Matsumoto disclose everything as applied to Claim 46 above, and Matsumoto further discloses that different data is combined with copyright control information (error information is added to other than the main data, column 8, lines 38-44) and that data is encoded with error correction code (column 8, lines 33-36).

In reference to Claim 50, Tosaki discloses everything as applied to Claim 49 above. However, Tosaki does not disclose that data is not corrected by an error correcting process.

Matsumoto discloses a copy control system in which data is not corrected by an error correcting process (errors intentionally added are detected but not necessarily corrected, column 8, line 65-column 9, line 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tosaki, to include data that is not corrected by an error correcting process, in order to prevent unauthorized copying of digital data more effectively by allowing the use of different forms and levels of copy restriction (see Matsumoto, column 2, lines 25-27).

In reference to Claim 52, Tosaki and Matsumoto disclose everything as applied to Claim 50 above, and Matsumoto further discloses that different data is combined with other data (error information is added to other than the main data, column 8, lines 38-44) and is encoded with error correction code (column 8, lines 33-36).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Aizawa, US Patent 5646993, discloses a method and apparatus for copy protection of optical discs using encryption and write-protection.

- b. Timmermans et al, US Patent 5737286, disclose a system and apparatus for copy protection of an optical disc using encryption and variation of multiple physical parameters of the disc.
- c. Ishiguro et al, US Patent 5917910, disclose an encryption and recording apparatus and method for optical discs.
- d. Oshima et al, US Patent 6081785, disclose an optical disc system including auxiliary data recording areas that can be used for disc identification or encryption keys.
- e. Hogan, US Patent 6532201, discloses a copy protection system for optical discs including error correcting codes, encryption, and features causing intentional errors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A Davis whose telephone number is (703) 305-8902. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

zad
zad

Matthew Smithers
MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137